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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,965	01/21/2005	Jean-Michel Sauvage	089A.0006.U1(US)	2112
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HARRINGTON & SMITH 4 RESEARCH DRIVE, Suite 202 SHELTON, CT 06484-6212			EXAMINER JOSEPH, TONYA S	
			ART UNIT 3628	PAPER NUMBER
			MAIL DATE 06/21/2010	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/521,965

Applicant(s)

SAUVAGE ET AL.

Examiner

TONYA JOSEPH

Art Unit

3628

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 14-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 14 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Status of Claims

Claims 1-11 and 14 have been previously examined. Claims 1-2 have been amended. No claims have been cancelled. Claim 15 has been added. Thus, claims 1-11 and 14-15 are presented for examination.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/01/2010 has been entered.

Response to Arguments

Applicant's arguments have been considered but are not persuasive. Applicant argues that Hornick teaches away from the claimed subject matter. The Examiner disagrees. While Hornick does describe a total number of seats authorized for sale as being exactly equal to the capacity of the leg, Hornick describes deliberately overbooking a flight which would exceed the capacity of the original aircraft. Hornick further goes on to solve an optimization equation using the overbooked capacity to satisfy the demand (see Col. 14 lines 10-43). Nothing in Hornick tends to disparage sharing a capacity between two flights or otherwise present it as an unworkable solution. "[T]he prior art's mere disclosure of more than one alternative does not

constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed . . ." In re Fulton, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004). The disclosure of Hornick does not rise to the level of a teaching away. See MPEP §§ 2141.02, 2143.01, and 2145 X.D. for discussion on what constitutes a suitable teaching away. Accordingly, Applicant's arguments are not persuasive and Hornick is still relied upon as a primary reference.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hornick U.S. Patent No. 5,255,184 in view of Gale et al; hereinafter "Gale" Reference U of the attached PTO-892.

3. As per Claims 1 and 14-15, Hornick teaches determining at a predefined level of expected revenue (Y), a number of seats locally available avrik(Y) for a given class of service (k) on a given transport service (Fi) between said two locations (see Col. 6 lines 49-56); selecting at least one other class of service (k') of another transport service (Fj) between said two locations (see Col. 5 lines 2-11);

determining the number of locally available seats $aVF_{jk}(Y)$ for the class of service (k') of the another transport service (F_j) at the predefined level of expected revenue (Y) (see Col. 6 lines 48-56 and Col. 5 lines 46-51); Hornick does not explicitly teach the limitation taught by Gale

and determining for the given class of service (k) on the given transport service (f_i), an overall number of available seats $XFAVF_{jk}(Y)$ at the predefined level of expected revenue (Y) as a function numbers of locally available seats ($aVF_{ik}(Y)$), determined for the given transport service and the at least another transport service between said two locations

where the given transport service between said two locations is a journey consisting only of a single leg (see pg. 136, Col. 2 lines 4-24 and pg. 139 Col. 1 lines 23-31). It would have been prima facie obvious to one of ordinary skill in the art at the time of invention to modify the method of Hornick to include the teachings of Gale to aggregate capacity on parallel flights.

4. As per Claim 2, Hornick teaches the method of claim 1 as described above. Gale further teaches the overall number of available seats $XFAVF_{ik}(Y)$ is determined by adding up the numbers of seats available locally ($a_{vid}(Y)$, $av_{fjk}(Y)$) of the two classes of service (k , k') determined for the given transportation service and the at least another transport service between said two locations (see pg. 136, Col. 2 lines 4-24 and pg. 139 Col. 1 lines 23-31).

5. As per Claim 10, Hornick teaches the method of claim 1 as described above. Hornick further teaches the steps in the process are carried out each time there is an availability request from a customer (see Col. 6 lines 1-20)

6. Claims 3-9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hornick in view of Gale et al., hereinafter "Gale" Reference U of the attached PTO-892 in further view of Talluri U.S. Patent No. 6,263,315 B1.

7. As per Claim 3, Hornick teaches the method of claim 1 as described above. Hornick does not explicitly teach the method taught by Talluri

- to each class of service a boundary transfer value (SPmax) is assigned that corresponds to the maximum number of reservation requests for the class of service that can be transferred to seats on other classes of service (see Col. 2 lines 10-14);
- for each class of service, a number of transferable reservation requests (SP(Y)) is determined that is equal to:

- either zero, if the number of seats available locally for said class of service (k) is positive (see Col. 2 lines 10-14).

for each class of service, a number of reservation requests that can be accepted (SA(Y) is determined that is equal to:

- or the number of seats available locally for said class of service $avk(Y)$ if this number is positive (see Col. 1 lines 65-67 and Col. 2 lines 1-27). It would have been prima facie obvious to one of ordinary skill in the art at the time of invention to modify the method of Hornick to include the teachings of Talluri to incorporate booking limitations, as taught by Talluri Col. lines 10-15).

8. As per Claim 4, Hornick in view of Gale teaches the method of claim 1 as described above. Hornick does not explicitly teach the limitation taught by Talluri to each class of service a boundary acceptance value (SA_{max}) is assigned that corresponds to the maximum number of seats in said class of service that can be used to transfer reservation requests on other classes of service; - an upper limit that is equal to the boundary acceptance value (SA_{max}) is assigned to the number of reservation requests that can be accepted (see Col. 2 lines 1-22 and Col. 3 lines 8-16). It would have been prima facie obvious to one of ordinary skill in the art at the time of invention to modify the methods of Hornick and Gale to include the teachings of Talluri to allow a maximum available capacity for a demand class, as taught in Talluri Col. 3 lines 14-16.

9. As per Claim 5, Hornick in view of Gale and Talluri teaches the method of claim 3 as described above. Hornick further teaches a single other class of service (k') that belongs to another transport service (F_j) is selected; - the total acceptance capacity (TSA_k) from the other class of service (k') for the given class of service (k) is determined by selecting the minimum value from the boundary transfer value (SPF_{jk}max) of the given class of service (k) and the number of reservation requests that can be accepted (SAF_{jk}(Y)) on said other class of service (k') (see Col. 24 lines 41-60), the total transfer capacity (TSP_k) on said other class of service (k') is determined on the given class of service (k) by selecting the minimum value from the number of transferable reservation requests for the other class of service (k') (SPF_{jk}'(Y)) (see Col. 24 lines 41-60) and the number of reservation requests that can be accepted on the given class of service (k) (SAF_{ik}(Y)), the overall number of available seats XFAV_{ik}(Y) is calculated by • adding

the number of seats available locally $aVFik(Y)$ and the total acceptance capacity $TSAFik(Y)$ (see Col. 25 lines 11-22). The limitation, "and subtracting therefrom the total transfer capacity $TSPFik(Y)$ " is merely a statement of intended use and as such is afforded little patentable weight.

10. As per Claim 6, Hornick in view of Gale and Talluri teaches the method of claim 4 as described above. Hornick further teaches for each class of service (k) of a given transport service (Fi), the classes of service (k') of the transport service are selected that have a lower index to which the reservation requests on the class of service of the given transport service (Fi) can be transferred (see Col. 12 lines 36-49). Hornick does not explicitly teach the limitation taught by Talluri, an index i is assigned to each transport service, whereby the value of said index increases with the time of departure, (see Col. 6 lines 24-30, Examiner is interpreting the threshold value to have the equivalent effect of an index based on a departure time). It would be prima facie obvious to one of ordinary skill in the art at the time of invention to modify the method of Hornick to include the teachings of Talluri to assign a weight to a parameter lines 55-59. The limitation, "a transport service chain (Fi) is formed that has successive departure times and where each departure time has a selected class of service (k, k') is merely a statement of intended result and as such is afforded little patentable weight.

11. As per Claim 7, Hornick in view of Gale and Talluri teaches the method of claim 6 as described above. Hornick further teaches the total acceptance capacity $TSAFik(Y)$ for the class of service (k) is determined by selecting the minimum value from the boundary transfer value ($SPFikmax$) of the given class of service (k) and the sum of the

numbers of reservation requests that can be accepted (SAFjk,(Y)) for the classes of service (k') of transport services (Fj) to which the given class of service (k) can be transferred (see Col. 24 lines 41-60).

12. As per Claim 8, Hornick in view of Gale and Talluri teaches the method of claim 7 as described above. Hornick further teaches the total transfer capacity TSPFik from all of the other classes of service to a class of service (k) is determine from the update of the number of reservation requests that can be accepted to said class of service (k) (see Co. 24 lines 41-60 and Col. 5 lines 51-65).

13. As per Claim 9, Hornick in view of Gale and Talluri teaches the method of claim 8 as described above. Hornick further teaches the overall number of available seats XFAVFik(Y) is calculated by adding the number of seats available locally aVFik(Y) and the total acceptance capacity TSAFik(Y) (see Col. 25 lines 11-22). The limitation, "and subtracting therefrom the total transfer capacity TSPFik(Y)" is merely a statement of intended use and as such is afforded little patentable weight.

14. As per Claim 11, Hornick in view of Gale and Talluri teaches the method of claim 6 as described above. Hornick further teaches the total transfer capacity TSPFik from all of the other classes of service to a class of service (k) is determine from the update of the number of reservation requests that can be accepted to said class of service (k) (see Col. 24 lines 41-60 and Col. 5 lines 51-65).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TONYA JOSEPH whose telephone number is (571)270-

1361. The examiner can normally be reached on Mon-Fri, 7:30 am-5:00pm First Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on 571 272 0847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JOHN W HAYES/
Supervisory Patent Examiner, Art Unit 3628